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10/552,100

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EXAMINER

HOLLOWAY, JASON R

ART UNIT

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3633

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PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

| | | | |
|------------------------------|--------------------------------------|--|--|
| Office Action Summary | Application No. 10/552,100 | Applicant(s) SHANNI, VINCENT | |
| | Examiner JASON HOLLOWAY | Art Unit 3633 | |

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 24 June 2009.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-6,8-17,19-28,30-33 and 37 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-6,8-17,19-28,30-33 and 37 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Response to Amendment

1. The previous drawing objections are withdrawn in light of Applicant's remarks.
2. The previous claim objections are withdrawn in light of Applicant's amendments.
3. Claims 7, 18 and 29 are canceled.
4. Claims 34-36 are canceled thus the previous double patenting rejection is withdrawn.

Claim Rejections - 35 USC § 103

5. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

6. Claims 1-36 are rejected under 35 U.S.C. 103(a) as being unpatentable over Colvin, Jr. (4,660,332) (herein Colvin) in view of Nystrom et al. (3,146,864) (herein Nystrom).

Regarding claims 1, 12 and 23, Colvin teaches a multi-story prefabricated folding structure comprising:

a generally rectangular central core (5 of figures 1 and 2) and a sub-core attached under the central core (sub-core is illustrated in figure 17; all the components of the central core are included in the sub-core) comprising a plurality of core walls (22-28, figures 6-8 and 10-13), a core floor section (41) connected to and extending between the core walls at a base of the core walls (as illustrated in figures 6-8 and 10-

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13), and a core roof section connected to and over the core walls and over the core floor section (roof sections as illustrated in figures 7, 11 and 13);

a plurality of folding rooms and a plurality of folding sub-rooms (folding sub-rooms via figure 17; all the components of the folding rooms are included in the folding sub-rooms), attached to the central core; each folding room comprising a plurality of room wall members (71 and 72 figures 6-8 and 10-13), a folding room floor section (folding floor members 61 and 62) and sub-floor section (sub-floors as illustrated in figure 17 comprise all the components of the main floor section) removably attached to and extending between the room walls at a base of the room walls and a folding a room roof section (folding ceiling sections 81 and 82) removably attached to and extending over the room wall members and extending over the room floor section (as illustrated in figures 6-8, 11 and 13); each of the room wall members, the room floor section and the room roof section comprising a plurality of spaced beams having at least one flat side (figure 5 illustrates floor joists 411 and 413, ceiling joists 402, and studs 273 each have at least one flat side and are spaced from each other).

at least one said room floor section (61, 62) being pivotally connected (via pivot 2 of figures 6-8) at one end thereof to said core floor section (core section 41) (column 3 lines 30-32); at least said one room roof section being pivotally connected at one end thereof to said core roof section (as illustrated in figures 2 and 6-8 the roof is pivotally connected to core); said room wall members being removably attached (via nut and bolt at pivot 3) to said room floor section and said room roof section; each room roof section (81 and 82) being pivotally connected to the core roof section (50-54) on the same side

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of the central core as each room floor section is connected to the core floor section (as illustrated in figures 2 and 6-8 roof is pivotally connected to core on the same side as the floor section);

wherein each folding room floor section and sub-floor section and each folding room roof section are capable of being alternately detached from its room wall members and pivoted inwardly toward said central core or central sub-core and positioned in close proximity to and substantially parallel to a corresponding core wall or sub-core wall and thereby form a compact folded structure (as illustrated in compacted folded structure of figures 2 and 6), or pivoted outwardly away from said central core to define a room adjacent to said central core when attached to its room wall members (as illustrated in figures 6-8, 11, 13 and 17);

However, Colvin fails to explicitly disclose a second sub-core (i.e. a third story) having all the limitations of the core and the sub-core. It would have been obvious to one of ordinary skill in the art to provide a second sub-core or third story to the invention of Colvin in order to provide additional living space to the residential building. Further, it would have been obvious to provide a third story to the invention of Colvin since it has been held that mere duplication of parts has no patentable significance unless a new and unexpected result is produced (*In re Harza*, 274 F.2d 669, 124 USPQ 378 (CCPA 1960)).

Further, Colvin fails to explicitly disclose each of said core and sub-core walls, core and sub-core floor sections and core roof section comprise a plurality of metal channel beams (instead, Colvin discloses wooden beams) and wherein said core walls,

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room wall members, sub-core walls, sub-room wall members, second sub-core walls, and second sub-room wall members further comprise a plurality of spaced metal channel studs having at least one flat side, wherein at least one of said metal channel studs is positioned within a notch cut into an edge flange of a metal channel beam of at least one core wall room wall member, sub-core wall, sub-room wall member, second sub-core wall, or second sub-room wall member, and wherein an end of the metal channel stud rests on an opposite edge flange of the metal channel beam.

Nystrom teaches a metal building having metal channel beams (70, 75, 76, 98; figures 1, 3-5, 9-13 and 17-19) wherein all the walls have metal channel beam construction and wherein at least one of said metal channel studs is positioned within a notch cut into an edge flange of a metal channel beam of at least one room wall member (as illustrated in figures 1, 3-5, 15 and 17-19, interconnecting metal uprights and studs and rafters are all connected by providing interlocking via notched ends wherein the end of one member is disposed in the notch of another.

Therefore, from the teaching of Nystrom, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the wooden beams of Colvin with the teaching of using metal channel beams as disclosed in Nystrom to provide stronger support to the folding structure.

Regarding claims 2, 13 and 24, the combination of Colvin and Nystrom teaches the beams comprise steel (column 6 lines 33-36 of Nystrom).

Regarding claims 3, 14 and 25, Colvin teaches the beams pivot around bolts (beams pivot about pivots 2-4 as illustrated in figures 2, 3, 6-8, 11, 13, 16 and 17).

Regarding claims 4, 15 and 26, the combination of Colvin and Nystrom teaches the beams have a generally U-shaped cross-section with a wide flat side extending to opposite perpendicular edges (the beams 70, 75, 76, 98 of Nystrom have U-shaped cross sections with a flat side; as illustrated figures 1, 3-5, 9-13 and 17-19).

Regarding claims 5, 16 and 27, the combination of Colvin and Nystrom teaches the beams have a generally C-shaped cross-section with a wide flat side extending to opposite perpendicular edges having perpendicularly inwardly positioned edge flanges (the beams 70, 75, 76, 98 of Nystrom have C-shaped cross sections with a flat side and inwardly positioned edge flanges 100A; as illustrated figures 1, 3-5, 9-13 and 17-19).

Regarding claims 6, 17 and 28, the combination of Colvin and Nystrom teaches adjacent beams are positioned with their respective wide flat sides in juxtaposition and said beams being attached together with a plurality of bolts and nuts (the beams 70, 75, 76, 98 of Nystrom are juxtaposed and attached via nuts and bolts; as illustrated figures 1, 3-5, 9-13 and 17-19).

Regarding claims 8, 9, 19, 20, 30, 31 and 34, the combination of Colvin and Nystrom teaches a plurality of rafters (via truss 31 and folding roof sections 50-54), said rafters comprising a pair of metal channel beams having at least one flat side (metal channel rafter beams via rafter elements 40 and 41 as illustrated in figure 19 of Nystrom), and which pair of beams are attached together at one end of each of said beams via at least one bolt and nut (as illustrated in figure 19 of Nystrom; the rafter beams of Colvin are also attached via nuts and bolts), one of said rafter beams being notched and the other of said rafter beams being positioned within the notch such that

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said rafter beams are interlocking with one another (figures 17-19 of Nystrom illustrate the interlocking process of connecting rafter beams 40 and 41 together via notches 48 and 48A and threaded fasteners 50);

and each room roof section being pivotally connected to the core roof section via an end of a rafter beam on the same side of the central core as each room floor section is connected to the core floor section (as illustrated in figures 6-8, 10-13 and 17 of Colvin, the room roof sections are pivotally connected in the manner as claimed by Applicant).

Regarding claims 10, 21, 32, and 35, the combination of Colvin and Nystrom teaches a plurality of metal channel core roof section supports, each one of said core roof section supports being positioned within a notch in one of the rafters (figures 4 and 5 of Nystrom illustrate a rafter assembly having a notch in which metal channel support member is inserted) and attached to said rafter via at least one bolt and nut such that said supports and said rafter beams are interlocking with one another (column 4 line 70 to column 5 line 10 of Nystrom teaches the fastening of support columns to rafters of figures 4 and 5 via suitable fasteners inserted through the holes. It would be obvious to use nuts and bolts as the suitable fasteners).

Regarding claims 11, 22, 33 and 36, the combination of Colvin and Nystrom teaches a plurality of metal channel room roof section supports (metal channel beams via Nystrom), each room roof section being pivotally connected to the core roof section by pivotally connecting each of the room roof section supports by a bolt and nut to one of said rafter beams (as illustrated in figures 2, 3, 6-8 and 10-13 of Colvin, room roof

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sections are pivotally connected to core roof sections via pivots 2-4 which comprise a bolt and nut).

7. Claim 37 is rejected under 35 U.S.C. 103(a) as being unpatentable over Colvin, Jr. (4,660,332) in view of Nystrom et al. (3,146,864) further in view of Smith (5,461,832).

Regarding claim 37, the combination of Colvin and Nystrom teaches a process of prefabricating a folding structure as described above in the preceding claim rejections of claims 1-36, however, the combination of Colvin and Nystrom fails to explicitly disclose a trailer which comprises a rectangular framework, which framework is disposed on at least four wheels, an upper edge of the rectangular framework comprising a channel around a periphery of the framework and forming a habitable structure on the trailer.

Smith teaches a transportable foldable building which comprises a rectangular framework (as illustrated in figure 1), which framework is disposed on at least four wheels (four wheels illustrated in figures 4 and 7-10), an upper edge of the rectangular framework comprising a channel around a periphery of the framework (column 6 lines 48-50 teaches the trailer includes channel brackets on opposing sides of the trailer in order to facilitate construction of the building) and forming a habitable structure on the trailer (column 1 lines 43-45 and column 3 lines 37-46 teaches the building is built on the trailer).

Therefore, from the teaching of Smith, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the folding structure of the combination of Colvin and Nystrom to include a trailer as taught by Smith in order

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to provide a transport means which eliminates the step of placing a structure onto a trailer thereby reducing costs and manufacturing time.

Response to Arguments

8. Applicant's arguments filed 24 June 2009 have been fully considered but they are not persuasive.

9. The examiner agrees with the statement on the remarks page 18 lines 27-29 that metal beams would be more durable than Colvin's wooden beams. Nystrom teaches a building using metal channel beams. It is widely well known in the art that a building structure can be made of metal or wood or a combination of the two. Thus the examiner notes that it would be an obvious substitution to replace the design of wooden beams and studs of Colvin with metal beams as taught by Nystrom.

10. Regarding applicants arguments on page 19 line 23 to page 20 line 9 that since Nystrom is not related to folding structures, it would not be obvious to interchange wooden beams with metal beams in building construction. As stated above, the examiner disagrees since substituting metal beams as taught by Nystrom with wooden beams as taught by Colvin would be a simple design change and require only routine skill in the art. The Colvin reference was used to teach the general idea of the instant claims and Nystrom was used to teach the simple substitution between wooden and metal beams.

11. Regarding the arguments on page 20 lines 10-23, the examiner disagrees. Figures 4 and 5 of Nystrom clearly illustrate a notched beam arrangement exactly as claimed wherein one beam is joined in the notched portion of a second beam at their

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respective end sections. It would be obvious to one of ordinary skill in the art to provide this connection in the combination of Colvin and Nystrom to provide the appropriate amount of support for the building and strength for the joint sections.

Conclusion

12. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to JASON HOLLOWAY whose telephone number is (571) 270-5786. The examiner can normally be reached on M-F 9:00-5:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Richard Chilcot can be reached on 571-272-6777. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

JASON HOLLOWAY
Examiner
Art Unit 3633

JH

/Brian E. Glessner/
Primary Examiner, Art Unit 3633